California State University, San Bernardino
Mathematics Department

Math 213-02, Calculus III, Spring 2020

Instructor:	Dr. Lynn Scow
Office location:	(I will not be in my office this term.)
Telephone:	(909) 537-5373 (email is preferred)
E-mail:	lscow@csusb.edu
Office hours:	Friday 10:40-11:50am and 1:20-2:30pm
	or by appointment
Class days and times:	MW 1:20-2:30pm (and flipped lectures)
Classroom:	(This class is online.)
Prerequisites:	Math 212 with a grade of C or better

Class Communications

Blackboard: The syllabus, homework (HW) problems and link to text may be found on Blackboard. Any additional assignments, quizzes, tests and links to important websites can also be found on Blackboard. Announcements will be sent out by email over Blackboard. You are responsible for reading these announcements, either by email, or by logging into Blackboard. The Content section of Blackboard will contain answer keys and PDF notes from our Zoom sessions.

Slack: You should have received an email inviting you to join Slack. Asking and answering math questions is worth Participation points (see below). Slack is also a good place to post your (non-private) questions about the class, so that other students may benefit from the discussion. Links to the lecture videos will be available in #video-lectures in Slack. Students are expected to post in a way that is professional and courteous to one another.

Email: Please reserve email for personal communication that you would not like to share with the class. I will be actively on email every Friday during class time and you can request a video chat at that time. I try to respond to emails within 24 hours on weekdays.

Course Description

We will cover sections 2.2-2.4, 5.1-5.6, 6.1-6.4, 7.1-7.5 in the text. Topics include sequences and series, which can be used to model discrete-time processes of population growth, drug dosing and investment growth. The power series representation for functions allows us to approximate transcendental functions by polynomials of increasingly high degree. We also study geometric applications of single variable calculus to set the stage for further studies in multivariable calculus. This includes an introduction to polar coordinates and parametric functions as well as volumes of solids.

Student Learning Outcomes

Students completing this class will:

1. Develop quantitative reasoning skills.
   Student learning outcomes are:
   a. Students will gain mastery of computational skills in algebra, trigonometry, or calculus
   b. Students will represent mathematical information symbollically, verbally, numerically, analytically, visually, and graphically
   c. Students will interpret mathematical models such as formulas, graphs, and tables.
2. Develop problem solving abilities and critical thinking skills.
   Student learning outcomes are:
   a. Students will interpret mathematical problems in a variety of situations
   b. Students will identify appropriate problem solving strategies for various problems
   c. Students will apply mathematical models to, or derive mathematical models from, real-life contexts
   d. Students will logically analyze and evaluate a proposed solution to a mathematical problem.

Text

Calculus, Volume 2, published by *Openstax* (link to pdf is on Blackboard)
To download a free PDF visit https://openstax.org/details/calculus-volume-2

Class Protocol

This is a mostly-flipped class which means most lectures will be recorded to be viewed online. Homework will be started in class (after which you will turn in a neatly-written version). Dates you must be available are **Wednesday, May 13** and **Friday, June 12** for the Midterm and Final exams (during the regularly-scheduled times, see below). Otherwise, the timing to fulfill course requirements is somewhat flexible.

On Mondays and Wednesdays: you are encouraged to join the Zoom meeting during our regular class time. Being an active participant in the Zoom meeting counts for Participation points (see below) and helps you to complete your Homework.

On Fridays: I will be holding an office hour during our normal class time. You can email me questions at that time or you may email me to request a Zoom meeting. If a Zoom meeting is requested, I will share the Meeting ID with the class.

Assignments and Grading Policy

Note the below totals to 102%, meaning high participation results in Extra Credit.

Participation (15%)

10% = attending all the Monday/Wednesday Zoom sessions and making positive contributions throughout class time.
10% = correctly completing all the Wiley Plus (WP) ``Assignments''.
10% = posting both frequent (8 per week) and productive messages on Slack with a balance between questions and answers.

If you wish to combine modalities, you are encouraged to allocate your time roughly in increments of 5%, e.g.

10% Zoom + 5% Slack
5% Zoom + 10% Slack
5% Slack + 10% Wiley Plus
5% Zoom + 5% Slack + 5% WP, etc.

HW Presentation (2%)

Every student must present their solution to one HW problem, either during a Zoom session, or in a video posted on Slack.

How to Complete and Submit HW/Quizzes/Tests

Write your answers on paper, scan/photograph, and upload to Blackboard. You must use an app to convert your work into **one PDF**, (such as Genius Scan or Cam-Scanner) **or you risk losing points**. Assignments will be submitted through the Gradescope link on Blackboard.

HW must be written up in your own words, but you may collaborate with other students and use technology to assist.

Quizzes/Tests must be done on your own, with no collaboration, with only a scientific calculator, the textbook and your own notes.

Homework (HW) (20%)

Written homework is due every Monday starting Monday, 4/13. If there is a school holiday on that Monday, the HW is due the following Tuesday. The exercises come from the book and exercise numbers are posted on Blackboard. The exercises should have been started in the previous week's Zoom sessions.

No late homework is accepted. If you cannot submit a homework on time due to illness, work, extracurriculars, family obligations, etc., know that you can drop **one** homework assignment out of a planned total of **eight**. If your situation exceeds the drop policy and can be verified in writing, it is your responsibility to talk to me as soon as possible to discuss possible solutions.

I may create one or two ***additional*** assignments, to review for tests.

Quizzes (20%)

Quizzes are due on some Fridays. The quiz will be posted the Wednesday before. The quiz is untimed. Scientific calculators are allowed and the quiz is open-book, open-notes. No other resources are allowed and no collaboration is allowed.

No make-up quizzes will be given. Instead, your lowest quiz score will be dropped out of a planned total of **six**.

Midterm Exam (15%)

There will be one online timed midterm exam for the full period of class on **Wednesday, May 13**. Scientific calculators are allowed and the exam is open-book, open-notes. No other resources are allowed and no collaboration is allowed.

No make-up exams will be given except in extreme and compelling circumstances that can be verified in writing. If you talk to me ahead of time, it may be possible to give you an early exam, depending on circumstances.

Final Exam (30%)
There is a final exam scheduled for 12:00-1:50pm on **Friday, June 12.**

Scientific calculators are allowed and the exam is open-book, open-notes. No other resources are allowed and no collaboration is allowed.

Your final exam score will replace your midterm exam score if it is higher.

Grading Scale
A: 90-100; B: 75-89; C: 60-74; D: 45-59; F: 44 and below
+/- grades may be given in the upper/lower ends of each grade range with the exception of A+/F.

University Policies and Campus Resources

Dropping and Adding
You are responsible for understanding the policies and procedures for add/drops, withdrawal, etc. which can be also be found in the CSUSB Bulletin of Courses. See http://bulletin.csusb.edu/academic-regulations/

Academic Integrity
Students are expected to be familiar with University policy on cheating and plagiarism in ``Academic Regulations and Standards'' in the CSUSB Bulletin of Courses.

Exams: You may not consult any unauthorized source during quizzes or exams. Academic dishonesty will result in a zero for that assignment. Cases of academic dishonesty will be referred to the appropriate office. If any student suspects academic dishonesty in the class, s/he is encouraged to share these concerns with the professor.

Diversity Statement
In our commitment to the furthering of knowledge and fulfilling our educational mission, California State University, San Bernardino seeks a campus climate that welcomes, celebrates, and promotes respect for the entire variety of human experience. In our commitment to diversity, we welcome people from all backgrounds and we seek to include knowledge and values from many cultures in the curriculum, and

extra-curricular life of the campus community. Dimensions of diversity shall include, but are not limited to, the following: race, ethnicity, religious belief, sexual orientation, sex/gender, disability, socioeconomic status, cultural orientation, national origin, and age. (from the CSU San Bernardino University Diversity Committee Statement of Commitment to Diversity, 1995)

Support for Students with Disabilities

In keeping with the university's Commitment to Diversity, the faculty of the College of Natural Sciences fully supports the Americans with Disabilities Act (ADA). Faculty will provide reasonable accommodation to any student with a disability who is registered with the Office of Services to Students with Disabilities and who needs and requests accommodation. If you are in need of an accommodation for a disability in order to participate in this class, please see the instructor and contact Services to Students with Disabilities at UH-183, (909) 537-5238.

If you require assistance in the event of an emergency, you are advised to establish a buddy system with a buddy and an alternate buddy in the class. Individuals with disabilities should prepare for an emergency ahead of time by instructing a classmate and the instructor.

Emergency Management

For information regarding campus emergency management and safety guidelines see <https://www.csusb.edu/emergency-management>.

Addendum

At some point in the class it may be necessary to make certain changes to the syllabus to benefit students. Any changes will be announced via Blackboard.